

Revised Total Coliform Rule: Quick Reference Guide

Overview of the Rule	
Title*	Revised Total Coliform Rule (RTCR) 179 NAC 26
Purpose	To increase public health protection through the reduction of potential pathways of entry for fecal contamination into distribution systems.
General Description	The RTCR establishes a maximum contaminant level (MCL) for <i>E. coli</i> and uses <i>E. coli</i> and total coliforms to initiate a “find and fix” approach to address fecal contamination that could enter into the distribution system. It requires public water systems (PWSs) to perform assessments to identify sanitary defects and subsequently take action to correct them.
Utilities Covered	The RTCR applies to all PWSs.
* This document provides a summary of Nebraska drinking water requirements; to ensure full compliance, please consult 179 NAC 26 and related regulations.	
Critical Deadlines and Requirements for Public Water Systems	
<u>Before</u> April 1, 2016	<ul style="list-style-type: none"> ✓ PWS must develop a written sample siting plan that identifies all sample sites, including sites for routine and repeat monitoring. ✓ PWSs monitoring quarterly must also identify additional routine monitoring sites in their sample siting plans. ✓ Sample siting plans are subject to state review and revision.
<u>Beginning</u> April 1, 2016	PWSs must comply with RTCR requirements.
What are the Major Provisions?	
Routine Sampling Requirements	
<ul style="list-style-type: none"> ➤ Total coliform samples must be collected by PWSs at sites which are representative of water quality throughout the distribution system according to a written sample siting plan subject to state review and revision. 	
<ul style="list-style-type: none"> ➤ For PWSs collecting more than one sample per month, collect total coliform samples at regular intervals throughout the month, except that ground water systems serving 4,900 or fewer people may collect all required samples on a single day if the samples are taken from different sites. 	
<ul style="list-style-type: none"> ➤ Each total coliform-positive (TC+) routine sample must be tested for the presence of <i>E. coli</i>. 	
<ul style="list-style-type: none"> ➤ If any routine sample is TC+, repeat samples are required. – PWSs on quarterly monitoring must take a minimum of three additional routine samples (known as additional routine monitoring) the month following a TC+ routine or repeat sample. 	
Repeat Sampling Requirements	
Within 24 hours of learning of a TC+ routine sample result, (or as soon as possible) at least 3 repeat samples <i>must</i> be collected and analyzed for total coliform	<ul style="list-style-type: none"> ➤ One repeat sample must be collected from the same tap as the original sample. ➤ One repeat sample must be collected from within five service connections upstream. ➤ One repeat sample must be collected from within five service connections downstream. ➤ The PWS may propose alternative repeat monitoring locations that are expected to better represent pathways of contamination into the distribution system. (Develop an SOP as part of the sample siting plan.)
If one or more repeat sample is TC+:	<ul style="list-style-type: none"> ➤ The TC+ sample must be analyzed for the presence of <i>E. coli</i> ➤ The PWS must collect another set of repeat samples, unless an assessment has been triggered.

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Assessments and Corrective Actions		
The RTCR requires PWSs that have an indication of coliform contamination (e.g., as a result of TC+ samples, <i>E. coli</i> MCL violations, performance failure) to assess the problem and take corrective action. There are two levels of assessments (i.e., Level 1 and Level 2) based on the severity or frequency of the problem.		
Purpose of Level 1 and Level 2 Assessments	To find sanitary defects at the PWS including: <ul style="list-style-type: none">Sanitary defects that could provide a pathway of entry for microbial contamination, orSanitary defects that indicate failure (existing or potential) of protective barriers against microbial contamination.	
Deadline for Completing Corrective Actions	When sanitary defects are identified during a Level 1 or Level 2 Assessment, they should be corrected as soon as possible to protect public health. The PWS must complete corrective actions by one of the following timeframes: <ul style="list-style-type: none">No later than the time the assessment form is submitted to the Department, which must be within 30 days of triggering the assessment, orWithin Department-approved timeframe which was proposed on the assessment form.	
Level 1 Assessments		
Conducting Level 1 Assessments	<ul style="list-style-type: none">Performed by the PWS owner or operator each time a Level 1 Assessment is triggeredUpon trigger of a Level 1 Assessment, the Level 1 Assessment form must be submitted within 30 days to the Department.	
Level 1 Assessment Triggers	Level 1 Assessment is triggered if any one of the following occurs: <ul style="list-style-type: none">A PWS collecting fewer than 40 samples per month has 2 or more TC+ routine/repeat samples in the same month.A PWS collecting at least 40 samples per month has greater than 5.0% of the routine/repeat samples in the same month that are TC+.A PWS fails to take every required repeat sample after any single TC+ sample.	
Level 2 Assessments		
Conducting Level 2 Assessments	<ul style="list-style-type: none">Performed by the Department each time a Level 2 Assessment is triggered.The PWS is responsible for ensuring that the Level 2 Assessment is conducted, regardless of the entity conducting it.Upon trigger of a Level 2 Assessment, the Level 2 Assessment form must be submitted within 30 days to the Department.	
Level 2 Assessment Triggers	Level 2 Assessment is triggered if any one of the following occurs: <ul style="list-style-type: none">A PWS incurs an <i>E. coli</i> MCL violation.A PWS has a second Level 1 Assessment within a rolling 12-month period.	
Major Violations		
<i>E. coli</i> MCL Violation	<i>E. coli</i> MCL Violation Occurs with the Following Sample Result Combination	
	Routine	Repeat
	EC+	TC+
	EC+	Any missing sample
	EC+	EC+
	TC+	EC+
Treatment Technique Violation	A PWS will receive a Treatment Technique violation when any of the following occur: <ul style="list-style-type: none">-- Failure to conduct a Level 1 or Level 2 Assessment within 30 days of a trigger.-- Failure to correct all sanitary defects from a Level 1 or Level 2 Assessment within 30 days of a trigger or in accordance with the Department-approved timeframe.-- Failure of a seasonal system to complete Department-approved start-up procedures prior to serving water to the public.	
Ground Water Rule		
<ul style="list-style-type: none">Ground water source well samples are triggered by any TC+ routine sample. These requirements remain unchanged.		